LLOYDMINSTER BI-PROVINCIAL UPGRADER

BACKGROUND PAPERS

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A. ELEMENTS OF THE JOINT VENTURE AGREEMENT - SUMMARY

I. PARTICIPATING INTERESTS IN THE JOINT VENTURE

1. JOINT VENTURERS

- The joint venturers will consist of:

  ° CLASS A
  - Canada, Alberta, Saskatchewan, and Husky (or each of their affiliates)

  ° CLASS B
  - Canada, Alberta and Husky (or each of their affiliates)

2. MAXIMUM AGGREGATE CONTRIBUTION

- Each of the joint venturers will contribute to the capital costs of the joint venture in proportion to its respective participating interest, to a maximum aggregate amount of $1.267 billion.

3. HUSKY'S PRIOR INVESTMENT

- Husky will be recognized as having contributed $100 million by way of prior investment for site acquisition and project engineering.

4. OPTION TO ACQUIRE CLASS B PARTICIPATING INTEREST

- Saskatchewan shall have the option to acquire all, but no less than all, of the Class B participating interests of the other joint venturers, for a period of 10 years from the signing date of this Joint Venture Agreement.

5. CLASS A AND CLASS B PARTICIPATION RATE

- CLASS A	Participation Rate (%)	Approximate Amount ($ million)
° Canada	30.0	380
° Alberta	22.5	285
° Saskatchewan	17.5	222
° Husky	25.0	320
TOTAL (CLASS A)	95.0	1,207

- CLASS B	Participation Rate (%)	Approximate Amount ($ million)
° Canada	1 2/3	20
° Alberta	1 2/3	20
° Husky	1 2/3	20
TOTAL (CLASS B)	5.00	60

II. SHARING OF NET OPERATING REVENUE (NOR)

1. HUSKY'S THRESHOLD: will be achieved when Husky's incremental equity contributions will have an after-tax stand-alone nominal rate of return of 10 per cent.

2. CLASS B THRESHOLD: will be achieved when Class B participating interests' equity contributions will have achieved an after-tax stand-alone nominal rate of return of 10 per cent.

3. HUSKY: 50 per cent of NOR until Husky's threshold.

4. CLASS B INTERESTS: 10 per cent of NOR until Class B threshold.

5. CANADA, ALBERTA AND SASKATCHEWAN
(in proportion to their respective participating interest in excess of Class B)

   - 40% of NOR until Husky's threshold.

6. CANADA, ALBERTA, SASKATCHEWAN AND HUSKY
(in proportion to their respective participating interests in excess of Class B)

   - 90 per cent of NOR until Class B threshold.

   - Net operating revenues shall be shared in proportion to their respective participating interests once Class B threshold has been achieved.

III. MAXIMUM AGGREGATE OPERATING SHORTFALLS

- $50 million, provided on an "as required" basis, in proportion to the respective participating interests of the joint venturers.

- To be repaid, pro rata in accordance with contributions, prior to the sharing of net operating revenue by the joint venturers.

IV. THE JOINT VENTURE BOARD

- Will have overall authority and responsibility to manage the business and affairs of the joint venture.
- Composed of a maximum of twelve (12) members.
- A maximum of three (3) members nominated by each of Canada, Alberta, Saskatchewan and Husky.
- One vote per member, with decisions by a simple majority of members voting, with a quorum of seven (7).
- Will negotiate and settle the terms and conditions of an "Operating Agreement" and a "Construction Management Agreement" with Husky, no later than March 31,1989.

V. OPERATOR

- Husky shall be the initial operator of the project on a cost reimbursement basis, pursuant to the terms of the operating agreement.

VI. DISPOSITION OF A PARTICIPATING INTEREST

- Any joint venturer can dispose to a third party all, or any portion, of its participating interest, with a first offer given to the other joint venturers.

VII. TAX STATUS

- Prevailing federal and provincial taxes will apply to the joint venture and to each of the joint venturers.
- Tax write-offs for government participating interests to be on a "stand-alone" basis.

VIII. FEEDSTOCK

- Will be purchased at market prices and will be sourced equally from Alberta and Saskatchewan if available.

IX. EMPLOYMENT AND INDUSTRIAL BENEFITS

- Governments to oversee development and application of employment and industrial benefits policy to maximize employment opportunities for Canadians and procurement of goods and services in Saskatchewan, Alberta and the rest of Canada.

- Husky to establish targets acceptable to the governments.

B. ECONOMIC BENEFITS

The Government of Canada's policy to support investment in mega-projects, which play a part in unlocking Canada's rich resource base for the benefit of Canadians into the next century, focuses on the important role such investments have in local and regional economic development. The commitment to proceed with the Lloydminster Bi-Provincial Upgrader is good news for the local area, for Alberta and Saskatchewan, and for Canada as a whole in terms of employment, incomes, and economic activity. It is a project which will be undertaken for Canadians and almost entirely by Canadians.

The spending undertaken in the development phase of the project over the next four years will pump more than $220 million into the economy of Saskatchewan, more than $550 million into Alberta, and another $165 million to suppliers of goods and services from all other regions in Canada. Over the 25 years of operation, another $2.5 billion (in $1988) will be paid to Canadian workers and suppliers to the project.

UPGRADER RELATED EXPENDITURES

	$ Billions 1988	Distribution %			
		Sask.	Alta	Other Canada	Imports
Upgrader					
- Development	1.1	20	55	15	10
- Operation	2.5	31	61	8	0
Total	3.6	28	58	11	3

An important aspect of the upgrader is the assurance that it will provide to producers of heavy crude oil, from the vast resources available in the area, a secure, long-term market in Canada for their output. The project will provide a basis upon which additional activity in the development and production of these resources may proceed. If all the feedstock requirements of the upgrader were to be met from incremental production, Husky has estimated that an additional $6.1 billion of investment and operating expenditure would be added to the economy.

FEEDSTOCK-RELATED EXPENDITURES

	$ Billions 1988	Distribution %			
		Sask.	Alta	Other Canada	Imports
Feedstock					
- Development	2.0	19	47	22	12
- Operation	4.1	45	55	0	0
Total	6.1	36	52	8	4

Husky has provided estimates of what these expenditures will mean in the way of employment. These estimates show 9 660 person-years (PYs) of employment of Canadians will be needed in the development phase. These jobs will be both on-site (direct) and in Canadian industry, which will supply the wide variety of components needed for the upgrader (indirect). Husky also envisages 550 permanent jobs created in the operating phase of the project.

EMPLOYMENT

Upgrader	Alberta	Sask.	Other Canada	Total
Development Phase (PYs)				
Direct	4010	1640	20	5810
Indirect (Mfg)	1000	615	1500	3850
Total	5010	2255	1520	9660
Operating Phase (Jobs)				
Direct	165	165	0	330
Indirect (Mfg)	172	4	44	220
Total	337	169	44	550

In addition, as noted above, the upgrader may generate additional activity in the development and production of heavy crude feedstock. The maximum possible estimates, assuming all feedstock production is incremental, are:

Feedstock

Maximum Possible (Jobs)				
Direct	780	720	0	1500
Indirect (Mfg)	164	34	147	420
Total	944	754	147	1920

For Lloydminster particularly, where economic activity has been restrained by the uncertainties in the domestic and international energy markets, the announcement that this project will proceed will provide much-needed relief. From being an area suffering from economic hard times (the most recent estimates show the local unemployment rate 3.5 per cent above the national average), Lloydminster will become a hub of opportunity and development.

Of course, these expenditures, and the incomes which flow from them, will induce other spending, creating spin-off jobs in all aspects of the Canadian economy.

C. CHRONOLOGY

1982	First Lloydminster upgrader proposal by Husky
June 1984	Memorandum of Understanding among Canada, Alberta, Saskatchewan and Husky - integrated field and upgrader project - $3.2 billion project cost
April 1986	Agreement to conduct a detailed engineering study
April 1988	Statement of Principles - proposed basis for future agreement with several private sponsors
September 2, 1988	Joint venture agreement
1988 - 1992	Development/construction phase
1992 - 2016	Operation phase

D. DESCRIPTION OF UPGRADING PROCESS

Heavy crude oil, as it is produced, contains a very high proportion of the heavier oil products as well as large amounts of contaminants, such as sulphur and heavy metallic compounds. If used as feedstock to a conventional refinery, these crude oils result in an excessive production of low-value, high-sulphur content industrial fuels, or asphalts. Refiners would have to invest in expensive conversion equipment if they wished to use heavy crude oil to produce gasoline and the other high-value, light products. These factors reduce the value of heavy crude oil and constrain the demand.

The Lloydminster Bi-Provincial Upgrader Project will take 40 000 barrels per day (mb/d) of heavy crude oils from the Lloydminster and Cold Lake regions and convert them into a high-value, synthetic crude oil which can be used by conventional refiners to make gasoline and the other light products. The diluent required to get the heavy crude oil to the Lloydminster upgrader would be recovered and recycled to the field for reuse.

The complex will also process 6 mb/d of a light "tops" stream from Husky's nearby asphalt plant, bringing total synthetic crude production to 46 mb/d.

SIMPLIFIED PROCESS DESCRIPTION

The first step in the process is fractionation. The 52mb/d of heavy crude oil and diluent, and the 6 mb/d of asphalt plant "tops" are separated into components by distillation. The 12 mb/d of diluent will be recycled to the field. The lighter components of the heavy crude will be separated from the residual oil, which is difficult to boil.

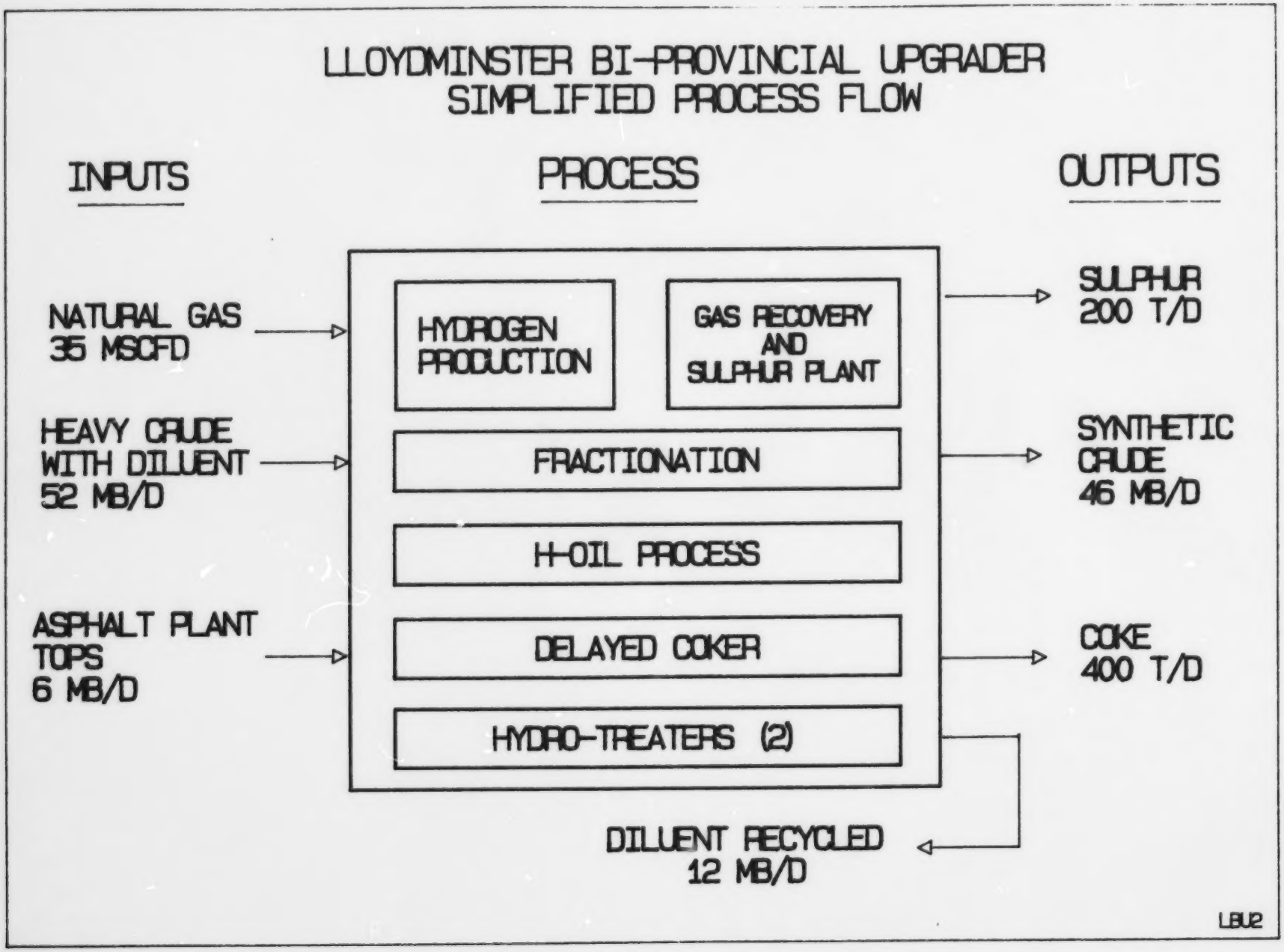
The residual oil from the fractionation step will be fed to an H-OIL process, the "heart" of the upgrading complex. This proprietary process will be designed to convert residual oils to lighter components and will remove a large part of the sulphur and heavy metals. The light products will be separated from the unconverted residue.

The unconverted, low-sulphur residue will be fed to a delayed coking process. This step will accomplish the balance of conversion to light products. About 400 tons per day of low-sulphur coke byproduct will be available for use as an industrial fuel.

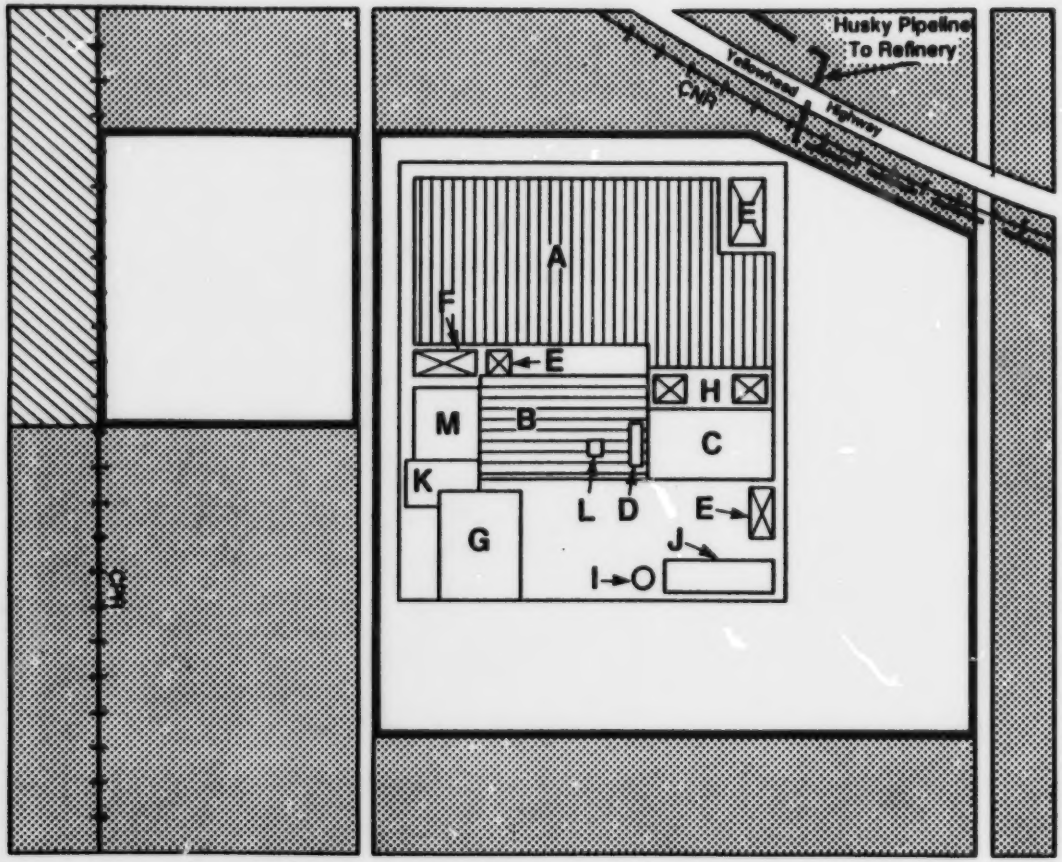
The light products from the fractionation step, the H-OIL process, and the delayed coker, will be treated in one of two hydrotreater processes, depending upon their individual boiling ranges. This step will stabilize the products as well as remove the remaining sulphur and nitrogen contaminants.

The hydrogen required by the H-OIL process and the two hydrotreaters will be produced by the steam-methane reforming process, using 36 million standard cubic feet per day (MSCFD) of natural gas as feedstock and fuel.

Light process gases from the various process units will be treated to remove sulphur and produce a plant fuel with a very low sulphur content and about 200 tons per day of sulphur byproduct.


LLOYDMINSTER BI-PROVINCIAL UPGRADER
SIMPLIFIED PROCESS FLOW
INPUTS
PROCESS
OUTPUTS
NATURAL GAS
35 MSCFD
HEAVY CRUDE
WITH DILUENT
52 MB/D
ASPHALT PLANT
TOPS
6 MB/D
HYDROGEN
PRODUCTION
GAS RECOVERY
AND
SULPHUR PLANT
FRACTIONATION
H-OIL PROCESS
DELAYED COKER
HYDRO-TREATERS (2)
SULPHUR
200 T/D
SYNTHETIC
CRUDE
46 MB/D
COKE
400 T/D
DILUENT RECYCLED
12 MB/D
LBU2

Bi-Provincial Upgrader Preliminary Plot Plan



Location of Bi-Provincial Upgrader